

Claims

1. Chip card secured system including a two chip card (1) housing a first chip (2) composed mainly of a microprocessor and of a secured programmable memory called permanent chip and a second chip (3) which is removable and includes mainly a read once memory in which is stored a preset credit amount at the disposal of the user, and a hand held terminal (6) suited for insertion of the said two chip card, the said hand held terminal containing communication means (11) in order to communicate with a remote transaction unit, in particular an external terminal (12', 12'', 12''', 12''') that records a transaction and interconnection means so as to connect the said first and second chip together in order to decrement the said secured programmable memory with the amount of the processed transaction;

the said system being characterized by the fact that the said read once memory of the removable chip contains, in addition to the said preset credit amount, a unique serial number allocated by the Central Bank like a bank note, the said credit amount and the said unique number being stored in the said secured programmable memory through the said interconnection means when the said two chip card is inserted for the first time in the said hand held terminal.

2. System according to claim 1, in which the said unique serial number is communicated with a code such as "new activated chip" to the said external terminal (12', 12'', 12''', 12''') through communication means (11) of the said hand held terminal (6) during the first transaction occurring after the installation of a new removable chip.

3. System according to the claim 2, in which the said serial number of the said removable chip (3) is transmitted to the said external terminal (12', 12'', 12''', 12''') with a code such as "chip used up" when the preset credit amount recorded in the said secured programmable memory is used up.
4. System according to the claim 3, including in addition a central computer system (14) connected to the said external terminal (12', 12'', 12''', 12'''), the later transmitting to the said centralized computer system the code such as "new chip activated" during the first transaction happening after the installation of a new removable chip, and the code such as "chip used up" when the amount of preset credit as been used up, the said pieces of information allowing the said centralized system to monitor and manage the money flows.
5. System according to claims 1 to 4, in which the said external terminal is a personal computer (12''') linked through the Internet network to a sales site (21) in order to allow the user of the said personal computer to process secured transactions with the said sales site using the said credit amount.
6. System according to one of the claims 1 to 4, in which the said external terminal is a phone set (12''') linked through the switched telephone network to a sales site (21) in order to allow the user of the said telephone to make secured transactions with the said sales site using the said credit amount.
7. System according to claim 5 or 6, in which the microprocessor of the said permanent chip (2) uses at least one algorithm to define an authorization number dedicated to

one transaction as a function of several parameters such as the contacts numbers of the buyer, the transaction amount, the serial number of the removable chip.

8. System according to claim 7, in which the said sales system (21) is fitted with the same algorithm as the one of the said microprocessor of the permanent chip (2) in order to define an authorization number allowing the checking of the coherence with the one that has been communicated by the said card (1).
9. System according to claim 8, in which the validation of the transaction is performed typing on the keyboard of the said personal computer (12''') or of the said telephone (12''') the serial number of the said removable chip (3) and an authorization number computed by the microprocessor of the said permanent chip (2), the said numbers being displayed on the screen (9) of the said hand held terminal (6).
10. System according to the claims 1 to 9, in which the microprocessor of the said permanent chip (2) checks before any transaction that the said removable chip (3) is still present in the said two chip card (1).
11. System according to one of the claims 1 to 10, in which the said terminal (12', 12'', 12''', 12'''') includes a chip card reading device (16,16'), that allows to make the transaction by contact by introduction of the chip card (1) in the said reading device in case of failure of the said hand held terminal.
12. System according to the claim 11, in which the said removable chip (3) is positioned according to a central symmetry compared to the said permanent chip (2) in order to

allow the successive reading of one chip and then the other one, by introduction, removal, rotation, and reinsertion of the chip card in the said reading device (16,16').

13. System according to the claim 1, in which the said external unit is a second hand held terminal in which is inserted a second two chip card, the transaction consisting in the debit the credit amount of the secured memory of the permanent chip of the card inserted in the first hand held terminal and in the transmission of the said amount and the serial number of the removable chip to the second hand held terminal, the later crediting the said amount in the secured memory of the permanent chip of the said second card and recording the serial number of the removable chip of the said first card.